WHAT IS CLAIMED IS:

1. A system for adjusting a photo-exposure time in a semiconductor manufacturing apparatus, the system comprising:

a photo-exposure unit for adjusting a photo-exposure time of a photo-exposure step performed on a semiconductor device in the semiconductor manufacturing apparatus, in accordance with one or more adjustment signals;

a pre-exposure step influence prediction unit for obtaining information about a semiconductor device in the manufacturing apparatus during a pre-exposure processing, prior to the device being subjected to the photo-exposure step, the information including a value of a factor that will influence a line width of a line formed on the semiconductor device in the photo-exposure step, and providing that information as feed forward data;

an inspection unit for generating an inspection value by measuring an aspect of the semiconductor device after it has been subjected to the photo-exposure step, and providing the inspection value as feed back data; and

a central processing unit for receiving the feed forward data and the feed back data, and generating the one or more adjustment signals based on the feed forward data and the feed back data.

2. The system for adjusting a photo-exposure time in a semiconductor manufacturing apparatus, as recited in claim 1, wherein the feed forward data is obtained by quantifying the obtained information.

3. The system for adjusting a photo-exposure time in a semiconductor manufacturing apparatus, as recited in claim 1, wherein one or more adjustment signals are transmitted to the photo-exposure unit by the central processing unit in a real time.

4. The system for adjusting a photo-exposure time in a semiconductor manufacturing apparatus, as recited in claim 1, wherein the one or more adjustment signals are generated through the use of a calculation formula.

5. The system for adjusting a photo-exposure time in a semiconductor manufacturing apparatus, as recited in claim 1, wherein the calculation formula weights the feed forward and feed back data.

6. The system for adjusting a photo-exposure time in a semiconductor manufacturing apparatus, as recited in claim 1, wherein the central processing unit comprises a database containing information obtained from the photo-exposure unit, the pre-exposure step influence prediction unit, and the inspection unit.

7. The system for adjusting a photo-exposure time in a semiconductor manufacturing apparatus, as recited in claim 1, wherein the feed forward data pertains to the thickness of a film formed in processing of the pre-exposure step.

8. The system for adjusting a photo-exposure time in a semiconductor manufacturing apparatus, as recited in claim 7, wherein the film is a reflection barrier layer formed in the pre-exposure step.